



## PATENT COOPERATION TREATY

PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

03 FEB 2005

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 0000053819	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP2003/008037	International filing date (day/month/year) 23 July 2003 (23.07.2003)	Priority date (day/month/year) 07 August 2002 (07.08.2002)
International Patent Classification (IPC) or national classification and IPC D21H 23/18, 21/10		
Applicant <b>BASF AKTIENGESELLSCHAFT</b>		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of \_\_\_\_\_ sheets.

3. This report contains indications relating to the following items:

- I  Basis of the report
- II  Priority
- III  Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV  Lack of unity of invention
- V  Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI  Certain documents cited
- VII  Certain defects in the international application
- VIII  Certain observations on the international application

Date of submission of the demand 21 January 2004 (21.01.2004)	Date of completion of this report 07 December 2004 (07.12.2004)
Name and mailing address of the IPEA/EP Facsimile No.	Authorized officer Telephone No.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP2003/008037

**I. Basis of the report**

## 1. With regard to the elements of the international application:\*

- the international application as originally filed  
 the description:

pages \_\_\_\_\_ 1-8 \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_ , filed with the demand  
 pages \_\_\_\_\_ , filed with the letter of \_\_\_\_\_

- the claims:

pages \_\_\_\_\_ 1-9 \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_ , as amended (together with any statement under Article 19)  
 pages \_\_\_\_\_ , filed with the demand  
 pages \_\_\_\_\_ , filed with the letter of \_\_\_\_\_

- the drawings:

pages \_\_\_\_\_ , as originally filed  
 pages \_\_\_\_\_ , filed with the demand  
 pages \_\_\_\_\_ , filed with the letter of \_\_\_\_\_

- the sequence listing part of the description:

pages \_\_\_\_\_ , as originally filed  
 pages \_\_\_\_\_ , filed with the demand  
 pages \_\_\_\_\_ , filed with the letter of \_\_\_\_\_

## 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).  
 the language of publication of the international application (under Rule 48.3(b)).  
 the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.  
 filed together with the international application in computer readable form.  
 furnished subsequently to this Authority in written form.  
 furnished subsequently to this Authority in computer readable form.  
 The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.  
 The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4.  The amendments have resulted in the cancellation of:

- the description, pages \_\_\_\_\_  
 the claims, Nos. \_\_\_\_\_  
 the drawings, sheets/fig \_\_\_\_\_

5.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.  
PCT/EP 03/08037

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	1 - 9	YES
	Claims	none	NO
Inventive step (IS)	Claims	none	YES
	Claims	1 - 9	NO
Industrial applicability (IA)	Claims	1 - 9	YES
	Claims	none	NO

## 2. Citations and explanations

Reference is made to the following documents:

- D1: US-A-6 103 065 (HUMPHREYS HARRY NELSON ET AL)  
       15 August 2000 (2000-08-15)
- D2: US-A-5 266 164 (NOVAK ROBERT W ET AL)  
       30 November 1993 (1993-11-30)
- D3: US-B-6 238 521 (MALTESH CHIDAMBARAM ET AL)  
       29 May 2001 (2001-05-29)
- D4: EP-A-0 017 353 (ALLIED COLLOIDS LTD) 15 October  
       1980 (1980-10-15)

1. Document D1 (see claims 1 to 4; examples 1 and 2) shows a method for producing paper by shearing the paper material, adding a microparticle system consisting of a cationic polymer and a fine-particle inorganic component to the paper material following the last shearing step before agglomerating the material, dewatering the paper material to form sheets and drying the sheets, DADMAC, *inter alia*, being used as the cationic polymer of the microparticle system. Furthermore, the cationic polymers have a molar weight in the region of at least 500 000 Dalton (implied) and a charge density in the region of at most 4.0 meq./g ("less than 4.0

Meq.").

The subject matter of claim 1 differs from the overall teaching of D1 only in that the microparticle system used does not comprise polymers with a charge density of more than 4 meq./g; according to D1, cationic polymers (see point a) with a charge density of more than 4 meq./g must (also) be used. However, it is considered obvious to a person skilled in the art wishing to optimise the method according to D1 to omit a component. It must be assumed that only those components are added which are necessary for achieving the desired effect (FP retention). Moreover, the examples provided in the present application do not show any surprising effect in this regard in relation to D1.

Consequently, claim 1 lacks inventive step (PCT Article 33(3)).

2. The features of the dependent claims also appear to be substantially known from D1 (PCT Article 33(3)). In any case, if the remaining documents cited in the search report are consulted, in particular D2 (see column 5, lines 34 to 42), D3 (see the abstract) and D4 (see page 7, lines 20 to 27; tables 1 and 2; example 7; and claims 1 and 2), it becomes apparent that these features concern merely common measures or means that have long been known to a person skilled in the art (PCT Article 33(3)).
3. Industrial applicability would appear to be established (PCT Article 33(4)).

**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**

International application No.

PCT/EP 03/08037

4. In the national or regional phase, documents D2 and D3 should also be mentioned in the description.